

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-32. (Cancelled)

33. (Currently Amended) A respiratory mask assembly comprising:

a headgear structure including at least one ~~elongate strap~~ portion having an, ~~each end of the elongate strap being doubled over to form a loop;~~

a ~~pair of male connector portions~~ portion attached to the end of the at least one elongate strap portion, ~~each of the male connector portions~~ portion including a trailing portion that has a pair of spaced side portions and a cross bar extending transversely therebetween ~~to define a strap receiving aperture configured to allow the strap to pass therethrough so that the crossbar is disposed within the loop of the strap,~~ each of the male connector ~~portions~~ portion also including a leading portion that has a pair of longitudinally extending side beams spaced slightly inwardly from the side portions, the leading portion including a cross piece extending between the side beams and defining a leading edge of the male connector portion, the leading portion of ~~each~~ the male connector portion also including a cantilevered member extending from an intermediate portion of the cross piece toward the trailing portion of the male connector portion, the cantilevered member being movable between deflected and undeflected positions and being resiliently biased toward the undeflected position, the cantilevered member including a locking element extending outwardly therefrom, the locking element being positioned on the cantilevered member generally spaced from the cross piece, the leading portion of ~~each~~ the male connector

portion including a ridge structure adjacent the trailing portion and extending generally perpendicularly relative to the side beams;

a mask frame; and

a pair of female connector ~~portions formed in one piece with~~ portion secured to the mask frame and being configured to receive the male connector ~~portions~~ portion therein.

34. (Previously Presented) The respiratory mask assembly of claim 33, wherein the mask frame includes a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit, the mask frame including a pair of inclined side wall portions and a base portion, each side wall portion and the base portion having a portion thereof connected to the front wall portion.

35. (Previously Presented) The respiratory mask assembly of claim 34, wherein the mask frame includes a rim at rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto.

36.-38. (Cancelled)

39. (Currently Amended) A respiratory mask and headgear combination comprising a respiratory mask having a rigid mask frame, and a headgear for securing said mask on a patient, said headgear including at least one attachment strap, said mask frame having ~~rigidly~~ secured thereto a rigid first connector portion, further comprising ~~and~~ a second connector portion adapted

for releasable mating with said first connector portion, said second connector being connected to said attachment strap, wherein

said first and second connector portions form a press-release connection between said mask frame and said strap;

said first connector portion is a female connector ~~formed in a piece with~~ secured to said mask frame; and

said second connector portion is a corresponding male connector, and
said male connector includes a resiliently biased cantilever member depending from a leading end portion of said male connector and being lockable with said female connector.

40.-61. (Cancelled)

62. (Previously Presented) A respiratory mask for use with a headgear having first connector portions thereon, each of the first connector portions having one of a resiliently biased locking element and a locking element receiving aperture, the respiratory mask comprising:

a mask frame including a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit, the mask frame including a pair of inclined side wall portions and a base portion configured in a generally triangular arrangement so as to define an upper vertex portion provided by an intersection of the inclined side wall portions and a pair of laterally spaced lower vertex portions provided by intersections of respective inclined side wall portions and the base portion, each side wall portion and the base portion having a portion thereof connected to the front wall portion; an extension member protruding generally radially outwardly relative to the circular gas

inlet from the upper vertex, the extension member being configured to be coupled to a forehead support; the extension member providing an arcuate front wall member having a slot formed therein being oriented parallel to the extension member;

the mask frame includes an annular rim extending generally outwardly from rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto;

a pair of second connector portions formed in one piece with the mask frame at respective lower vertex portions thereof, the second connector portions being configured to releasably engage with the first connector portions; wherein

each of the second connector portions includes a generally oblong slot, the generally oblong slot being formed by a base wall member that is disposed between a respective side wall portion and the base portion of the mask frame and being generally parallel to the front wall portion, a pair of parallel spaced opposing wall members extending generally perpendicularly from the base wall member, and structure disposed between the pair of spaced opposing wall members and being spaced from and generally parallel to the base wall member, the structure includes the other of the resiliently biased locking element and locking element receiving aperture; the base and opposing wall members and the structure having inward end portions and outward end portions defining a direction that extends generally radially outwardly relative to the circular gas inlet aperture; outward end portions of the base wall member and the opposing wall structures defining a generally C-shaped laterally facing surface contained within a single plane.

63. (Previously Presented) A respiratory mask assembly comprising:

a headgear structure including at least one elongate strap, one end of the elongate strap being doubled over to form a loop;

a pair of first connector portions attached to the elongate strap, each of the first connector portions including a trailing portion that has a pair of spaced side portions and a cross bar extending transversely therebetween to define a strap receiving aperture configured to allow the strap to pass therethrough so that the crossbar is disposed within the loop of the strap, each of the first connector portions also including a leading portion that has a pair of longitudinally extending side beams spaced slightly inwardly from the side portions, leading edge portions of the side beams being inwardly tapered toward the leading edges thereof, each of the first connector portions having one of a resiliently biased locking element and a locking element receiving aperture;

a mask frame including a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit, the mask frame including a pair of inclined side wall portions and a base portion configured in a generally triangular arrangement so as to define an upper vertex portion provided by an intersection of the inclined side wall portions and a pair of laterally spaced lower vertex portions provided by intersections of respective inclined side wall portions and the base portion, each side wall portion and the base portion having a portion thereof connected to the front wall portion; an extension member protruding generally radially outwardly relative to the circular gas inlet from the upper vertex, the extension member being configured to be coupled to a forehead support; the extension member providing an arcuate front wall member having a slot formed therein being oriented parallel to the extension member;

the mask frame includes an annular rim extending generally outwardly from rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto;

a pair of second connector portions formed in one piece with the mask frame at respective lower vertex portions thereof, the second connector portions being configured to releasably engage with the first connector portions; wherein

each of the second connector portions includes a generally oblong slot, the generally oblong slot being formed by a base wall member that is disposed between a respective side wall portion and the base portion of the mask frame and being generally parallel to the front wall portion, a pair of parallel spaced opposing wall members extending generally perpendicularly from the base wall member, and structure disposed between the pair of spaced opposing wall members and being spaced from and generally parallel to the base wall member, the structure including the other of the resiliently biased locking element and the locking element receiving aperture; the base and opposing wall members and the structure having inward end portions and outward end portions defining a direction that extends generally radially outwardly relative to the circular gas inlet aperture; outward end portions of the base wall member and the opposing wall structures defining a generally C-shaped laterally facing surface contained Within a single plane;

wherein the side beams of each first connector portion are capable of being passed through the oblong slot of the respective second connector portion, such that the side beams are disposed substantially between the base wall member and the structure and are disposed substantially between and parallel to the pair of spaced opposing wall members, the crossbar being disposed proximate and generally parallel to the outward end portions of the base wall member;

the resiliently biased locking elements being movable between deflected and undeflected positions and being resiliently biased toward the undeflected position; and

the locking element receiving apertures being configured to locking engage with the resiliently biased locking elements when in the undeflected position.

64.-70. (Cancelled)

71. (New) A respiratory mask assembly according to claim 33, wherein each side portion of the trailing portion comprises at least one groove.

72. (New) A respiratory mask assembly according to claim 33, wherein the locking element comprises two lugs on opposite sides of the cantilevered member.

73. (New) A respiratory mask assembly according to claim 72, wherein each lug has a wedge profile.

74. (New) A respiratory mask assembly according to claim 33, wherein the ridge structure is formed on the cantilevered member.

75. (New) A respiratory mask assembly according to claim 33, further comprising an arcuate ridge between the ridge structure and the locking element.

76. (New) A respiratory mask assembly according to claim 33, wherein the pair of spaced side portions and the cross bar define an aperture configured to receive the end of the at least one strap portion.
77. (New) A respiratory mask assembly according to claim 33, wherein the mask frame comprises an extension configured for attachment of a forehead support.
78. (New) A respiratory mask assembly according to claim 34, wherein the female connector portion is secured to the front wall portion of the mask frame.
79. (New) A respiratory mask assembly according to claim 33, wherein the female connector portion is secured to the mask frame to permit the male connector portion to be connected to and disconnected from the female connector portion in a single-hand operation.
80. (New) A respiratory mask assembly according to claim 39, wherein the mask frame includes a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit, the mask frame including a pair of inclined side wall portions and a base portion, each side wall portion and the base portion having a portion thereof connected to the front wall portion.
81. (New) A respiratory mask assembly according to claim 80, wherein the mask frame includes a rim at rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto.

82. (New) A respiratory mask assembly according to claim 39, wherein the cantilever member comprises a lug configured to engage a socket in the female connector.

83. (New) A respiratory mask assembly according to claim 82, wherein the lug has a wedge profile.

84. (New) A respiratory mask assembly according to claim 39, wherein the mask frame comprises an extension configured for attachment of a forehead support.

85. (New) A respiratory mask assembly according to claim 80, wherein the female connector is secured to the front wall portion of the mask frame.

86. (New) A respiratory mask assembly according to claim 39, wherein the female connector is secured to the mask frame to permit the male connector to be connected to and disconnected from the female connector portion in a single-hand operation.

87. (New) A headgear for a respiratory mask assembly, the headgear comprising:

at least one strap portion having an end;

a male connector portion attached to the end of the at least one strap portion, the male connector portion including a trailing portion that has a pair of spaced side portions and a cross bar extending transversely therebetween, the male connector portion also including a leading portion that has a pair of longitudinally extending side beams spaced slightly inwardly from the

side portions, the leading portion including a cross piece extending between the side beams and defining a leading edge of the male connector portion, the leading portion of the male connector portion also including a cantilevered member extending from an intermediate portion of the cross piece toward the trailing portion of the male connector portion, the cantilevered member being movable between deflected and undeflected positions and being resiliently biased toward the undeflected position, the cantilevered member including a locking element extending outwardly therefrom, the locking element being positioned on the cantilevered member generally spaced from the cross piece, the leading portion of the male connector portion including a ridge structure adjacent the trailing portion and extending generally perpendicularly relative to the side beams.

88. (New) A headgear according to claim 87, wherein each side portion of the trailing portion comprises at least one groove.

89. (New) A headgear according to claim 87, wherein the locking element comprises two lugs on opposite sides of the cantilevered member.

90. (New) A headgear according to claim 89, wherein each lug has a rounded wedge profile.

91. (New) A headgear according to claim 87, wherein the ridge structure is formed on the cantilevered member.

92. (New) A headgear according to claim 87, further comprising an arcuate ridge between the ridge structure and the locking element.

93. (New) A headgear according to claim 92, wherein a height of the arcuate ridge is less than a height of the ridge portion and more than a height of the locking element.

94. (New) A headgear according to claim 87, wherein the pair of spaced side portions and the cross bar define an aperture configured to receive the end of the at least one strap portion, the aperture having a first width adjacent the cross bar and a second width adjacent the cantilevered member, the first width being greater than the second width..

95. (New) A headgear according to claim 87, wherein a distance between a leading side of the cross bar and a trailing edge of the cantilever member is at least 5 mm.

96. (New) A headgear according to claim 87, wherein the ridge structure has a width of approximately 14 mm and a length of approximately 5 mm.

97. (New) A headgear according to claim 87, further comprising an arcuate projection extending inwardly from the cantilevered member.

98. (New) A headgear according to claim 97, wherein the arcuate projection is positioned between the locking element and the ridge structure.

99. (New) A respiratory mask and headgear combination comprising a respiratory mask having a rigid mask frame, adjustable headgear for securing said mask on a patient, said

headgear including at least one attachment strap adapted to extend in a predetermined direction when coupled with the frame, said mask frame having secured thereto a substantially rigid first connector, further comprising a second connector adapted for releasable mating with said first connector, said second connector being connected to said attachment strap of the headgear, wherein

said first and second connectors form a press-release connection;

said first connector is a female connector having a receiving slot, said female connector being secured to and extending laterally away from said mask frame such that the slot remains generally aligned with the predetermined direction of the strap;

said second connector is a corresponding male connector; and

said male connector includes a resiliently biased cantilever member depending from a leading end portion of said male connector and being lockable with said female connector upon insertion of said leading end portion into the receiving slot of the female connector.

100. (New) A respiratory mask assembly according to claim 99, wherein the female connector is secured to the mask frame to permit the male connector portion to be connected to and disconnected from the female connector portion in a single-hand operation.

101. (New) A respiratory mask assembly according to claim 99, wherein the mask frame includes a front wall portion defining a forward end of the mask frame, the front wall portion having a circular gas inlet aperture configured to connect to a gas delivery conduit, the mask frame including a pair of inclined side wall portions and a base portion, each side wall portion and the base portion having a portion thereof connected to the front wall portion.

102. (New) A respiratory mask assembly according to claim 101, wherein the female connector is secured to the front wall portion of the mask frame.

103. (New) A respiratory mask assembly according to claim 101, wherein the mask frame includes a rim at rear edges of the inclined side wall portions and the base portion, the rim defining a rearward end of the mask frame and being configured to allow a cushion to be attached thereto.

104. (New) A respiratory mask assembly according to claim 99, wherein the mask frame comprises an extension configured for attachment of a forehead support.

105. (New) A respiratory mask assembly according to claim 99, wherein the cantilever member comprises a lug configured to engage a socket in the female connector.

106. (New) A respiratory mask assembly according to claim 105, wherein the lug has a wedge profile.